a predetermined initial amount of a control sequence for quantitation of a target [nucleic acid] RNA, wherein said control sequence and its complementary sequence bind[s] the same primers as are bound by said target [nucleic acid] RNA segment and its complementary sequence; and

an oligonucleotide primer pair wherein said primer pair can serve to amplify said control sequence and said target [nucleic acid] RNA, wherein following amplification said control sequence and [target] amplified [nucleic acid] target segments are distinguishable by size.

35. (Once amended.) A reverse transcription reaction mixture for reverse transcribing a target mRNA suspected of being present in a biological sample, said reaction mixture comprising a predetermined initial amount of a control sequence cRNA, a target RNA, and a target-specific primer for initiating cDNA synthesis, wherein said primer can serve to initiate reverse transcription of a nucleic acid segment contained within said control sequence cRNA together with a segment contained within the particular target [nucleic acid] RNA, and wherein said control sequence is further distinguished by having a hybridization site identical in sequence to a hybridization site in said target [nucleic acid] RNA, whereby following reverse transcription the resulting target and control sequence cDNAs can serve as templates for amplification for providing control sequence and target amplified [nucleic acid] RNA segments which are distinguishable by size.

36. (Once amended.) A kit for the quantitation of a target [nucleic acid] RNA segment in a biological sample comprising individual containers which provide:

a predetermined initial amount of a control sequence for quantitation of a target [nucleic acid] RNA wherein said control sequence binds the same primers as are bound by said target [nucleic acid] RNA segment and its complementary sequence; and

an oligonucleotide primer pair wherein said primer pair can serve to amplify said control sequence and said target [nucleic acid] RNA,

wherein following amplification said control sequence and target amplified RNA segments are distinguishable by size or by use of an internal oligonucleotide probe.

37. (Once amended.) A plasmid for use as an internal control for quantitation of a target [nucleic acid] RNA sequence contained within a sample which plasmid comprises:

a control sequence comprising two sequences which provide primer hybridization sites in said plasmid which primer hybridization sites are identical to primer hybridization sites within said target [nucleic acid] RNA sequence such that a primer pair will function in a PCR reaction to amplify said control sequence and said target [nucleic acid] RNA segment, wherein upon amplification said control sequence and said target segments can be distinguished by size.

G1 Cont'd

42. (Once amended.) The mixture of claim 34, wherein the target [nucleic acid] RNA is contained within a nucleic acid sequence which encodes a protein associated with HIV or HCMV.

G2 Sub H2

44. (Once amended.) The kit of claim 36, wherein the target [nucleic acid] RNA is contained within a nucleic acid sequence which encodes a protein associated with HIV or HCMV.

G3 Sub H3

G3 cont

45. (Once amended.) The plasmid of claim 37, wherein the target [nucleic acid] RNA is contained within a nucleic acid sequence which encodes a protein associated with HIV or HCMV.

G4 SUB H4

46. (Once amended.) An amplification reaction mixture for the quantitation of a target [nucleic acid] RNA segment in a biological sample, said reaction mixture comprising:

said target [nucleic acid] RNA;

a predetermined initial amount of a control sequence for quantitation of a target [nucleic acid] RNA, wherein said control sequence binds the same primers as are bound by said target [nucleic acid] RNA segment; and

an oligonucleotide primer pair wherein said primer pair can serve to amplify said control sequence and said target [nucleic acid] RNA, wherein following amplification said control sequence and target amplified [nucleic acid] RNA segments are distinguishable by size or by the use of internal hybridization probes.

47. (Once amended.) A reverse transcription reaction mixture for reverse transcribing a target mRNA suspected of being present in a biological sample, said reaction mixture comprising a predetermined initial amount of a control sequence cRNA, a target RNA, and a target-specific primer for initiating cDNA synthesis, wherein said primer can serve to initiate reverse transcription of a nucleic acid segment contained within said control sequence cRNA together with a segment contained within the particular target [nucleic acid] RNA, and wherein said control sequence is further distinguished by having a hybridization site identical in sequence to a hybridization site in said target [nucleic acid] RNA, whereby following reverse

transcription the resulting target and control sequence cDNAs can serve as templates for amplification for providing control sequence and target amplified [nucleic acid] RNA segments which are distinguishable by size or by use of internal hybridization probes.

48. (Once amended.) A plasmid for use as an internal control for quantitation of a target [nucleic acid] RNA sequence contained within a sample which plasmid comprises:

a control sequence comprising two sequences which provide primer hybridization sites in said plasmid which primer hybridization sites are identical to primer hybridization sites within said target [nucleic acid] RNA sequence such that a primer pair will function in a PCR reaction to amplify said control sequence and said target [nucleic acid] RNA segment, wherein upon amplification said control sequence and said target segments can be distinguished by size or by use of an internal oligonucleotide probe.

49. (Once amended.) A method for the quantitative determination of a target [nucleic acid] RNA sequence in a sample which comprises

simultaneously amplifying by polymerase chain reaction said target [nucleic acid] RNA sequence and a predetermined amount of a control sequence, said control sequence being capable of amplification by the same oligonucleotide primers used for amplification of the target [nucleic] RNA sequence, and

quantifying the amount of said target [nucleic acid] RNA sequence in the sample using the control sequence as an internal standard.